

diffusion, ion concentration, particularly Mg^{2+} , Ca^{2+} and Zn^{2+} , etc. Preferably however it will be selected from blood parameters, e.g. pressure, temperature and pH, in particular in the vasculature rather than the chambers of the heart. Where temperature is being measured, changes may be due to intrinsic factors such as disease or because of external factors, i.e. hyperthermia. It is not envisaged that the parameter be one which does not affect the membrane or matrix, for example flow rate or perfusion density.

In the Claims

Please cancel claims 7 and 8.

Please amend claim 2 as follows:

2. (once amended) A method as claimed in claim 1 wherein the physiological parameter is pH, temperature, pressure, carbon dioxide tension, enzyme activity, tissue electrical activity, tissue water diffusion or ion concentration.

Please amend claim 6 as follows:

6. (once amended) A method of MRI as claimed in claim 5 wherein the contrast generating species is selected from a group consisting of a paramagnetic [and/or]compound, a superparamagnetic compound, [and/or]an iron oxide, [or]a gadolinium [or]compound and a dysprosium compound.